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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/699,750

11/03/2003

Scan M. Garner

SP03-152

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22928

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11/29/2007

CORNING INCORPORATED

SP-TI-3-1

CORNING, NY 14831

EXAMINER

MARTIN, ANGELA J

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

11/29/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/699,750

Applicant(s)

GARNER ET AL.

Examiner

Angela J. Martin

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 8-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This Office Action is responsive to the Amendment filed on September 10, 2007. The Applicant has amended claim 7 to overcome the claim objection. However, a new rejection is presented for the following reasons of record.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Sridhar et al., U.S. Pat. Application Pub. 2005/0074650 A1.

Sridhar et al., teach an electrolyte sheet comprising a body of varied thickness, said electrolyte sheet having a textured surface (abstract; 0004; 0177; 0178) with multiple protruding features (0178; Fig. 13), said protruding features forming an undercut angle with respect to the normal of said electrolyte sheet, said undercut angle being more than 0 degrees and less than 15 degrees (Fig. 13). The electrolyte sheet of claim 1, wherein said undercut angle is 1 to 10 degrees (Fig. 13). The electrolyte sheet of claim 1, wherein the thickest part of said electrolyte sheet is at least 0.5 microns greater than the thinnest part of said electrolyte sheet (0074). The electrolyte sheet of

claim 1, wherein the electrolyte sheet is a ceramic sheet formed of a polycrystalline ceramic selected from a group consisting of partially stabilized zirconia or stabilized zirconia, and being doped with a dopant selected from the group consisting of the oxides of Y (0180). The fuel cell device of claim 1, wherein the thickest part of said electrolyte sheet is at least 10 micrometers greater than the thinnest part of said electrolyte sheet (0186). A solid oxide electrode/electrolyte assembly comprising: the electrolyte sheet according to claim 1, said electrolyte sheet having an average electrolyte sheet thickness between 10 micrometers and 50 micrometers (0186), at least one cathode disposed on a one surface of said electrolyte sheet; and at least one anode disposed opposite the cathode on another surface of said electrolyte sheet (0176-0179). A solid oxide electrode/electrolyte assembly according to claim 6, comprising a plurality of cathodes situated on one side of said electrolyte sheet and a plurality of anodes situated on an opposite side of said electrolyte sheet (0188).

Thus, the claims are anticipated.

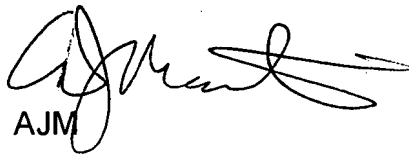
### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Badding et al., U.S. Pat. Application Pub. 2001/0044043, teach a yttria-stabilized Zr electrolyte for a solid oxide fuel cell with doping oxides. Lawrance et al., U.S. Pat. No. 4,272,353, teach an electrolyte sheet with varied thickness. Champion, U.S. Pat. Application Pub. 2003/0235753 A1, teach an electrolyte with a catalyst of varied surface area. McElroy, , U.S. Pat. Application Pub. 2003/0165732 A1, teaches an electrolyte with protrusions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela J. Martin whose telephone number is 571-272-1288. The examiner can normally be reached on Monday-Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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